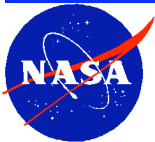


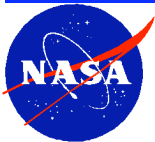
**State of U.S. CCSP, EOS, NASA HQ,
Terra Senior Review, CERES, NPOESS,
A-train, NEWS**

**4th CERES-II Science Team Meeting
Nov 1-3, 2005
Radisson, Hampton, VA**



U. S. Climate Change Science Plan (CCSP)

- CCSP Observation Working Group (OWG) is planning a March, 2006 workshop on climate observation requirements.
 - Nov 14-16 CCSP workshop decided not to include this topic.
- Multi-agency report of workshop on satellite calibration requirements for climate data records published in Sept 2005 issue of BAMS (Ohring et al.)
- Multi-agency workshop on ways to achieve satellite climate calibration goals in planning stages for May, 2006.



IPCC Assessment Report 4

- Chapter first drafts out for review now.
- Decadal changes in cloud/radiation are included in Chapter 3.



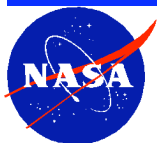
NASA Earth Science

- New NASA Administrator is Michael Griffith
 - Science/Engineering background, from Applied Physics Lab
 - Mary Cleave is AA for Science, Colleen Hartmann is Deputy AA
 - Don Anderson is Modeling lead, Hal Maring is Radiation Sciences
 - Great increase in science/engineering experience in NASA HQ leadership compared to O'Keefe/Diaz: political => technical
 - NRC report on NASA Earth Science Decadal Study concluded that the exploration initiative is having major negative impacts on earth science
 - Space Science and Earth Science may separate again (stay tuned)
 - Back to keeping a budget wall between science/exploration
- FY06 Budget expected to be nearly flat for earth science: improvement.
 - Problems remain with transition to “full cost accounting”
- Not clear when next ESSP competition will be
- NASA Earth Science Roadmaps from last spring not well received. NRC Decadal Study a much better but longer process.



CERES Program

- Terra Senior Review went very well: Terra ranked second of 12 missions considered. No new budget cuts.
- Overall CERES funding moderately decreasing each year as algorithms and data processing mature.
- Full Cost Accounting changes continue to cause budget headaches.
- Next required CERES proposal likely to be Aqua Senior Review in spring 2006 or 2007.
- NASA HQ Program Scientist will change from Don Anderson (now modeling program lead) to Hal Maring (now radiation science lead)
- NASA Energy and Water System (NEWS) science group: global water and energy data sets, including A-train: subsets of CERES, MODIS, CALIPSO, Cloudsat along the lidar/radar ground track (64km swath)

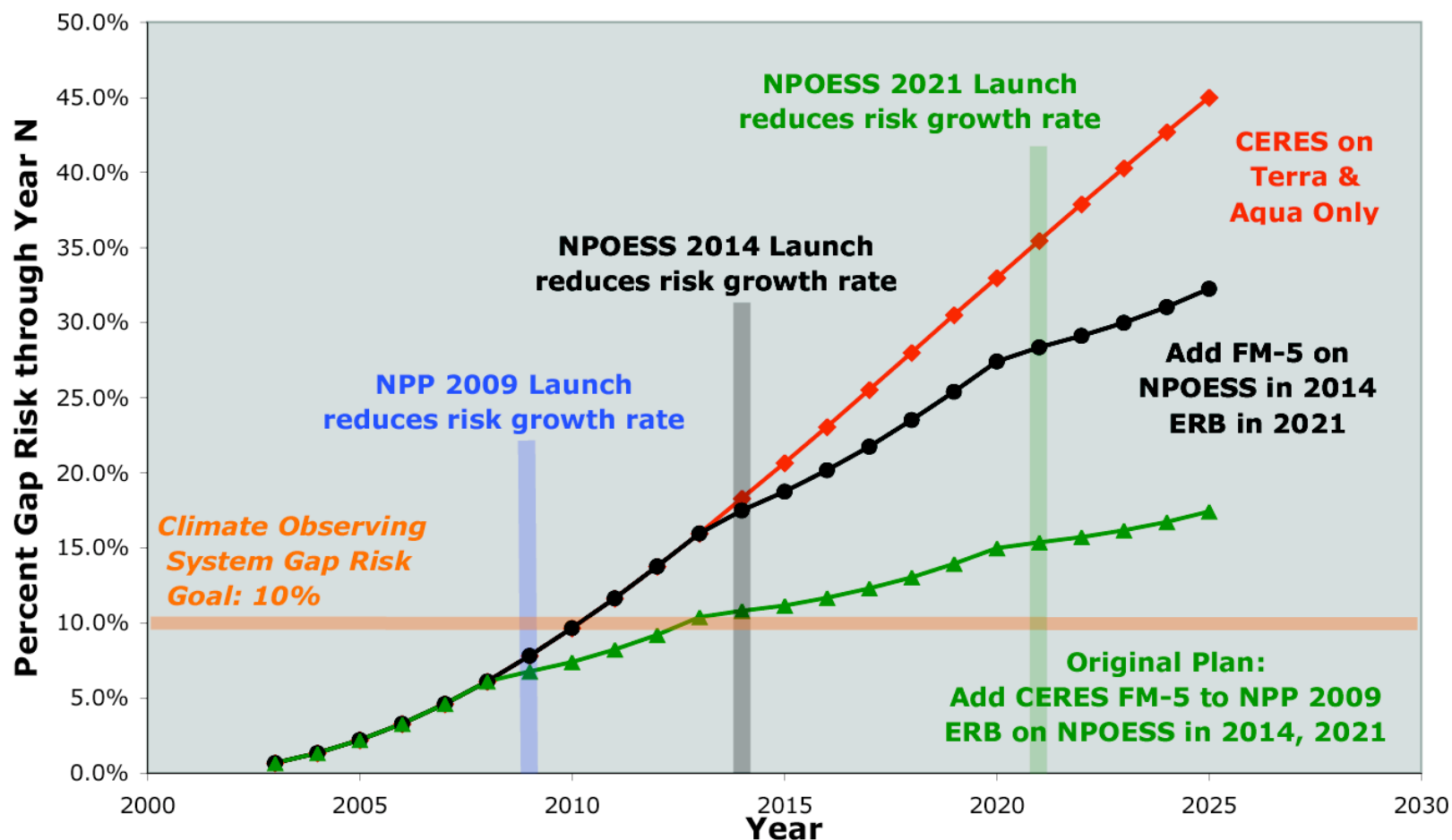


NPP and NPOESS: Delayed 30 months

- CERES FM-5 instrument still planned for first NPOESS 1:30 orbit launch
- NPOESS cost and schedule over-runs have caused a 30-month schedule slip
 - first NPOESS 1:30 LT satellite is now expected mid-2014.
 - NASA HQ has written a letter giving CERES FM-5 to NPOESS. Details TBD.
 - CERES has re-examined the radiation budget data gap risk
 - Gap risk now exceeds 10% climate goal (BAMS 2005, Ohring et al).
 - If Terra and Aqua data continue to be taken as long as viable, ~20% radiation budget data gap risk through end of 2014.
 - CERES has sent the gap analysis and suggested minimum improvements to FM-5 MAM, calibration, and characterization if used on NPOESS
 - Suggested improvements based on lessons learned on TRMM, Terra, Aqua
- CERES has been working with NPOESS to estimate costs of transitioning the data product software to NPOESS system
 - *either* process at NPOESS data centers for near real time use
 - *or* process at LaRC for near real time use
 - *in either case*, process at LaRC later for Climate Data Records



Radiation Budget Gap Risk: Satellite Scenarios Assumes 1 CERES instrument on Aqua, 2 on Terra



“A-Train” Formation for Aerosol and Cloud Vertical Profiles

Atmospheric State => Aerosol/Cloud => Radiative Heating



CALIPSO

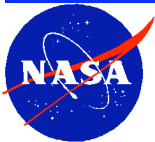
Probing Earth's atmosphere to unravel the mysteries of climate change.

CERES is working with CALIPSO and CloudSat to provide the science community CERES data subset along the lidar/radar ground track (NASA NEWS program)



Next CERES Science Team Dates/Locations

- Decadal variability for increased hurricane frequency: shift LaRC meeting to spring
- Spring Dates:
 - Avoid AGU May 23-26, EGU Apr 2-7, Calib Wkshop May 14-16
 - Easter April 16: avoid weeks before/after
 - Other Potential Conflicts?
 - Proposed date: April 25-27, location: Williamsburg
- Fall Meeting at GISS? Early Nov in NY. Stay tuned
- AMS Radiation Conference July 10-14, Madison, WI
 - Abstract submission deadline Feb 15



Clouds and the Earth's Radiant Energy System



Langley Research Center / Atmospheric Sciences Division

